

## ART 31 ALLOT

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## New claims

5 1. A process for preparing supported, titanized chromium catalysts, which comprises the following steps:

10      A) bringing a support material into contact with a protic medium having a water content less than 20% by weight and comprising a titanium compound and a chromium compound,

15      B) optionally removing the solvent,

20      C) optionally calcining the precatalyst obtained after step B) and

25      D) optionally activating the precatalyst obtained after step B) or C) in an oxygen-containing atmosphere at from 400°C to 1100°C.

2. A process as claimed in claim 1, wherein the support material is a silica gel.

3. A process as claimed in claim 1 or 2, wherein the chromium compound is an inorganic chromium compound.

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4. ~~A process as claimed in claim 3, wherein the inorganic chromium compound is chromium(III) nitrate nonahydrate.~~

5. A process as claimed in any of claims 1 to 4, wherein the titanium compound is titanium tetraisopropoxide, titanium tetra-n-butoxide or a mixture of these two titanium compounds.

30 6. A process as claimed in any of claims 1 to 5, wherein the protic medium is methanol.

7. A catalyst system obtainable by a process as claimed in any of claims 1 to 6.

8. A process for preparing polyolefins by polymerization or copolymerization of olefins in the presence of a catalyst system as claimed in claim 7.

35 9. A process as claimed in claim 8, wherein ethylene or a monomer mixture of ethylene and/or C<sub>3</sub>-C<sub>12</sub>-1-alkenes containing at least 50 mol% of ethylene is used as monomer(s) in the polymerization.

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